

# KAMI 5 SERIES

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AC - DC POWER MODULE  
13 ~ 15W UL / cUL / TUV / CE

## FEATURES

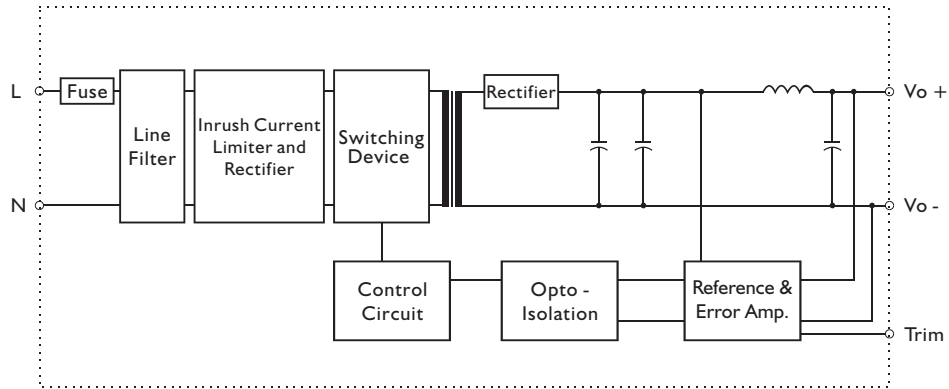
- AC/DC POWER MODULE
- UNIVERSAL INPUT 85 ~ 265 VAC
- HIGH EFFICIENCY UP TO 82%
- SHORT CIRCUIT PROTECTION
- INTERNAL INPUT FILTER
- 2 YEARS WARRANTY

## MODEL LIST

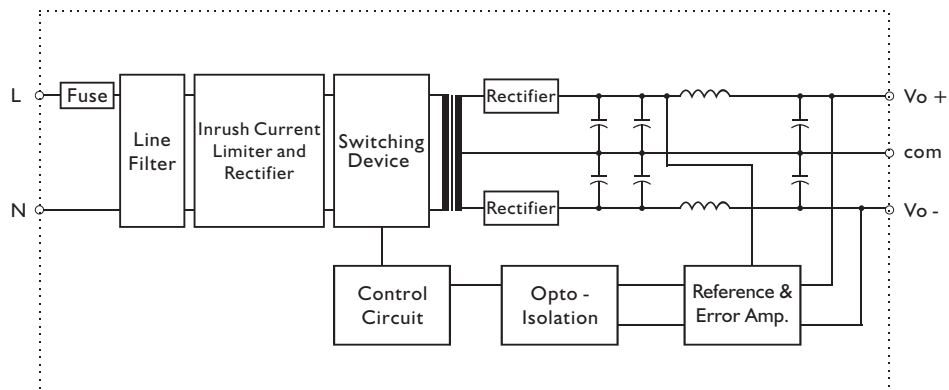
MODEL NO.	INPUT VOLTAGE	OUTPUT WATTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	EFF. (typ.)	EFF. (min.)
<b>Single Output Models</b>						
KAMI1503	85~265 VAC	13 WATTS	+3.3 VDC	4000 mA	73%	70%
KAMI1505	85~265 VAC	15 WATTS	+ 5 VDC	3000 mA	76%	74%
KAMI1512	85~265 VAC	15 WATTS	+ 12 VDC	1250 mA	82%	80%
KAMI1515	85~265 VAC	15 WATTS	+ 15 VDC	1000 mA	82%	80%
KAMI1524	85~265 VAC	15 WATTS	+ 24 VDC	625 mA	82%	80%
<b>Dual Output Models</b>						
KAMI1512D	85~265 VAC	15 WATTS	± 12 VDC	± 625 mA	81%	79%
KAMI1515D	85~265 VAC	15 WATTS	± 15 VDC	± 500 mA	80%	78%
KAMI15503D	85~265 VAC	15 WATTS	+ 5 / + 3.3 VDC	+ 1 A / + 3 A	74%	72%

### CIRCUIT SCHEMATIC

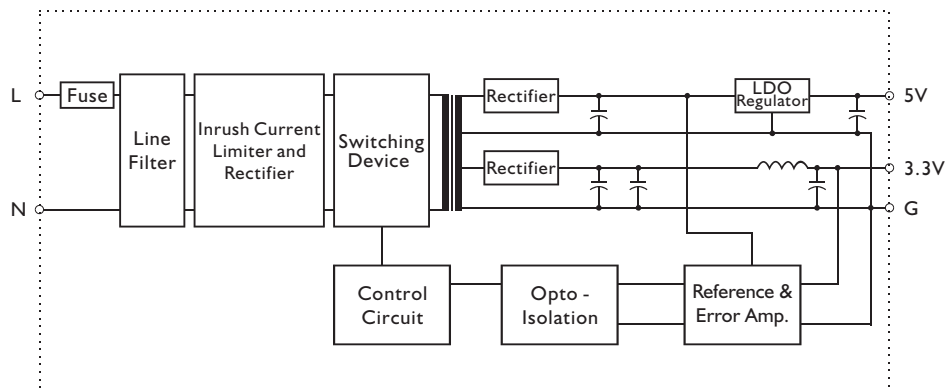
- Block diagram for KAMI5 series with single output



- Block diagram for KAMI5 series with dual output



- Block diagram for KAMI5503D



### SPECIFICATION

All Specifications Typical At Nominal Line, Full Load, 25°C Unless Otherwise Noticed

#### GENERAL

Characteristics	Conditions	min.	typ.	max.	unit
Switching frequency	Vi nom, Io nom		100		KHz
Isolation voltage	Input / Output	3,000			VAC
Isolation resistance	Input / Output, @ 500VDC	100			MΩ
Ambient temperature	Operating at Vi nom, Io nom	-20		+ 71	°C
Case temperature	Operating at Vi nom, Io nom			+ 80	
Derating	Vi nom, Io nom + 51 to +71°C			2	% / °C
Storage temperature	Non operational	-40		+100	°C
Relative humidity	Vi nom, Io nom			95	% RH
Dimension	L76.2 x W50.8 x H22.6				mm
Cooling	Free air convection				
Case material	Plastic				

#### INPUT SPECIFICATIONS

Characteristics	Conditions	min.	typ.	max.	unit
Rated input voltage	Io nom	85		265	VAC
Input voltage range	Io nom	AC in	85	265	VAC
		DC in	120	370	VDC
Line frequency	Vi nom, Io nom	47		63	Hz
Inrush current	Io nom	Vi : 115VAC		10	A
		Vi : 230VAC		18	A

#### OUTPUT SPECIFICATIONS

Characteristics	Conditions	min.	typ.	max.	unit
Output voltage accuracy	Vi nom, Io nom			± 2	%
Minimum load	Vi nom	0			%
	single output models dual output models (each output)	20			%
Line regulation	Io nom, Vi min ... Vi max			± 1	%
Load regulation	Vi nom,			± 2	%
	Io min ... Io nom			± 2	%
Transient recovery time	Vi nom, Io nom = I ↔ 0.5 Io nom		1,000		μs
Temperature coefficient	Vi nom, Io nom			± 0.02	% / °C
Ripple & noise	Vi nom, Io nom, BW = 20MHz	3.3V models		100	mV
	5V ... 24V models	Vout x ± 1% p-p max.			mV
External trim ADJ. Range 1) (for single output only)	Io = 5% ... 100%	-10		+ 10	%
Efficiency	Vi nom, Io nom, Po / Pi	Up to 82%, See model list			

NOTE 1 : Pls refer to Fig 1 & Table 1 for connection and resistance recommended.

#### CONTROL AND PROTECTION

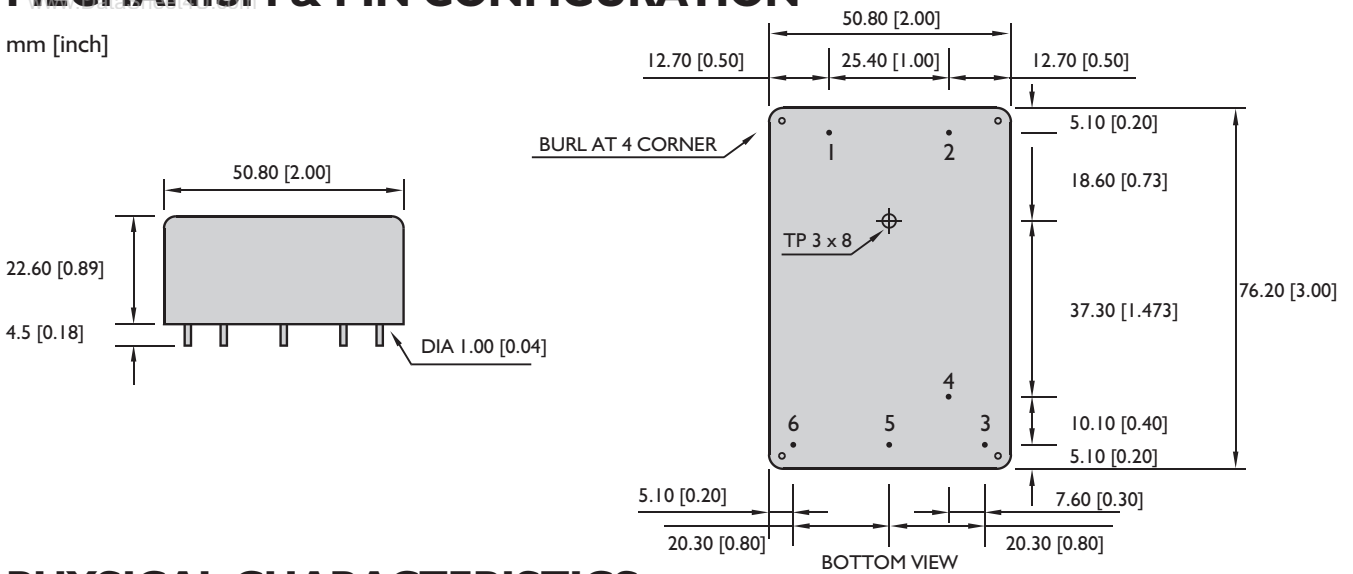
Input fuse	T2A / 250VAC internal
Output short circuit	By current limited

#### APPROVALS AND STANDARDS

UL / cUL	UL1950
TUV	EN60950
CE	EN55022 class B for EMI
	EN50082-1 for EMS

### MECHANISM & PIN CONFIGURATION

mm [inch]



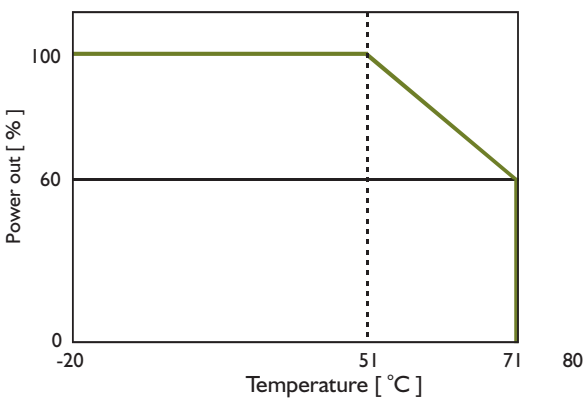
### PHYSICAL CHARACTERISTICS

CASE SIZE	76.2 x 50.8 x 22.6 mm 3 x 2 x 0.89 inches
CASE MATERIAL	Plastic
WEIGHT	160 g

### PIN ASSIGNMENT

GENERAL							
PIN NO.	1	2	3	4	5	6	
SINGLE	AC IN	AC IN	Vo -	Trim	NO PIN	Vo +	
DUAL	AC IN	AC IN	Vo - or +3.3V	NO PIN	com	Vo + or +5V	

### DERATING



### Fig. 1 Trim connection

(For single output only)

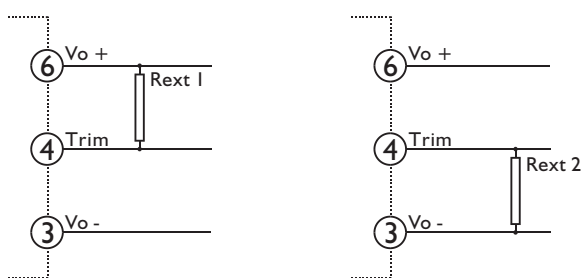


Table 1 Typical resistor values for various output voltage adjustment settings

Type	Rext 1		Rext 2	
	Uo nom -5%	Uo nom -10%	Uo nom +5%	Uo nom +10%
KAMI503	180KΩ	56KΩ	100KΩ	20KΩ
KAMI505	39KΩ	15KΩ	9.1KΩ	2.2KΩ
KAMI512	51KΩ	20KΩ	10KΩ	2KΩ
KAMI515	150KΩ	68KΩ	20KΩ	4.7KΩ
KAMI524	130KΩ	56KΩ	12KΩ	2KΩ